Alaska Injury Prevention Plan 2004

The Players

On November 15, 2003, the following injury prevention specialists graciously donated a Saturday afternoon to begin the strategic planning process that will ultimately result in an Alaska Injury Prevention Plan.

Facilitator

Rick Roberts, Alaska Native Tribal Health Consortium

Organizers

Helen Andon, Alaska Native Tribal Health Consortium
Ryan Hill, Alaska Native Tribal Health Consortium
Martha Moore, Alaska Department of Health and Social Services

Participants

Ward Jones, Bristol Bay Area Health Corporation
Mary Clark, Bristol Bay Area Health Corporation
Anita Bailor, Kodiak Island Area Native Association
Tom Fazzini, Yukon-Kuskokwim Health Corporation
Kelly McManus, South Central Health Corporation
Kathy O'Gara, Southeast Alaska Regional Health Consortium
Duffy Halliday, Norton Sound Health Corporation
Alix Chartier, Seldovia Village Tribe
Peggy Hayashi, Alaska Safe Kids
Jane Fellman, Kenai Peninsula Safe Kids
Corliss Taylor, Fairbanks Safe Kids
Karen Lawfer, Juneau Safe Kids
Gordon Glaser, Alaska Department of Health and Social Services
Maria Bailey, Alaska Department of Health and Social Services
Zoann Murphy, Alaska Department of Health and Social Services
Mary Krom, Alaska Department of Health and Social Services
Alice Walters, Alaska Department of Health and Social Services
Deborah Choromanski, Alaska Department of Health and Social Services
Mark Johnson, Alaska Department of Health and Social Services
Marcia Rom, Alaska Injury Prevention Center
Sue Hargis, U.S. Coast Guard

The Process

Force field analysis is an analytical tool that clarifies opposing aspects of a desired change.

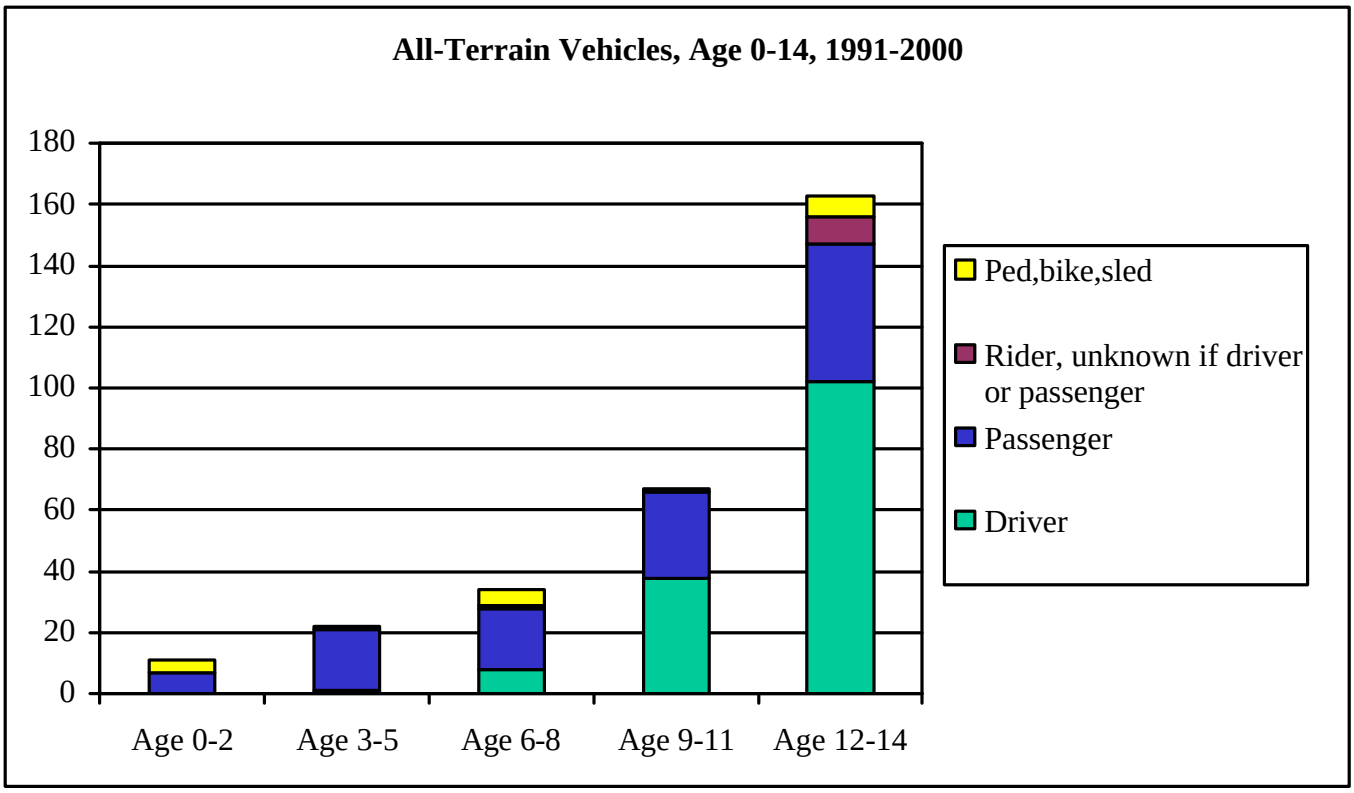
- Driving or positive forces that support an action or situation
- Restraining or negative forces that try to prevent it

When opposing forces are equal, no change can occur. When one set of forces becomes stronger than the other, change will occur. When all the forces have been considered, plans can be made that will encourage the desired change.

This strategic planning session focused on two distinct injury problems identified by Alaska Trauma Registry data: All terrain vehicle injuries for Alaskan children age 14 and under; Elder fall injuries to Alaskans age 70 and older. They were chosen because of the high rates, severity, and poor outcomes of these injuries, as well as no measured improvement over the past decade.

A presentation was made to the whole group summarizing trauma registry data on the two injury problems. Four groups were chosen to perform force field analysis on the two injury problems and identify interventions. The two groups addressing each of the two topics were combined to identify three or fewer priority interventions using the Injury Prevention Decision Matrix (Carolyn Fowler, Johns Hopkins Center for Injury Research and Policy).

All-Terrain Vehicle Injury Data from the Alaska Trauma Registry



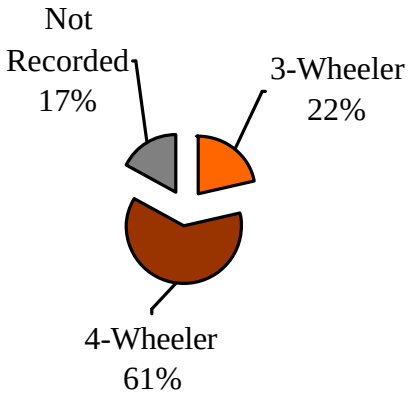
All Terrain Vehicle Injuries, Age 0-14, 1991-2000, Ranked by Regional Numbers

Region	***Reported Cases***
Yukon-Kuskokwim	44
Anchorage	30
Matanuska-Susitna	30
Norton Sound	29
Bristol Bay	29
Kenai Peninsula	27
Fairbanks North Star Borough	23
Northwest Arctic	22
Rural Interior	14
North Slope	14
Kodiak Island	9
Valdez-Cordova/Copper River	9
Southeast Alaska	8
Aleutian/Pribilof	4

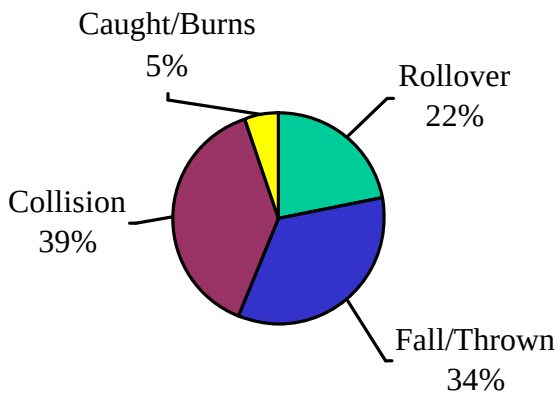
All Terrain Vehicle Injuries, Age 0-14, 1991-2000, Ranked by Regional Rates

Region	***Rate per 100,000***
Bristol Bay	118
Norton Sound	96
Northwest Arctic	87
North Slope	58
Yukon-Kuskokwim	54
Valdez-Cordova/Copper River	35
Rural Interior	34
Kenai Peninsula	23
Kodiak Island	23
Matanuska-Susitna	22
Fairbanks North Star Borough	10
Anchorage	5
Southeast Alaska	5

All-Terrain Vehicle Injuries, Age 0-14, 1991-2000
3-Wheeler or 4-Wheeler?



All-Terrain Vehicle Injuries, Age 0-14, 1991-2000
Type of Event



Collision	**114**
w/ Car/truck	21
w/ other ATV	19
w/ Object	18
w/ Ped,bike,sled	17
Not recorded	39

Collision w/ Object 18

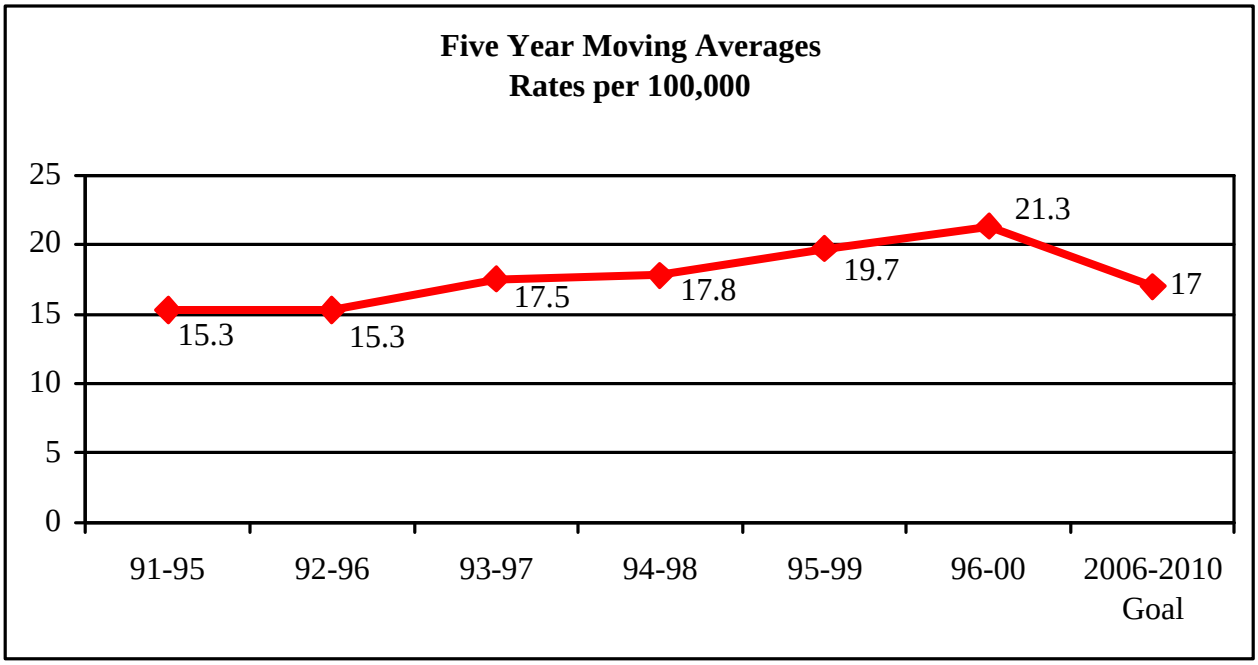
Trees, uneven ground, stumps, stakes, poles, garbage can, house, oil drum, sawhorse, ravine, fence

Fall/Thrown	**102**	
Age 0-5	12 Falls	6 Thrown
Age 6-14	31 Falls	53 Thrown

All-Terrain Vehicle Injuries, Age 0-14, 1991-2000
Odds Ratio = 4.3
In other words, un-helmeted ATV riders injured in a crash were over four times as likely to suffer a head injury than helmeted riders.

Helmet Use and Head Injury

	Head Injury (56)	No Head Injury
Helmet (46)	7	40
No Helmet (113)	49	65



Force Field Analysis: All-Terrain Vehicle Injuries, Age 0-14

	Driving	Restraining
Engineering	Helmets: more available, lower cost, better appearance and function (+3) Protective Gear: more available, lower cost, better function (+1) Progress in equipment modifications (+2)	Helmets: not available enough, not sized for multiple wearers (passengers/other owners/riders), not functional enough (freeze/fog/etc) (-4) Lack of safety harness/roll bar/etc safety systems (-4)
Enforcement	Village ordinances in some places (+1) Slow zones in some places (+4)	Non-support for legislation/licensing, etc (-3) Lack of laws, enforcement of speed, helmets, etc
Education	Education is available: "Stupid Hurts" (Honda), ATV rodeos, etc. (+1) PSAs to promote parental involvement, knowledge, attitudes, etc. (+1)	Lack of training, good programs, good instructors, etc. (-3) Manufacturer recommendation of no riders under 16 yoa inhibits training of that population. Age of actual riders vs. age of education. (-2)

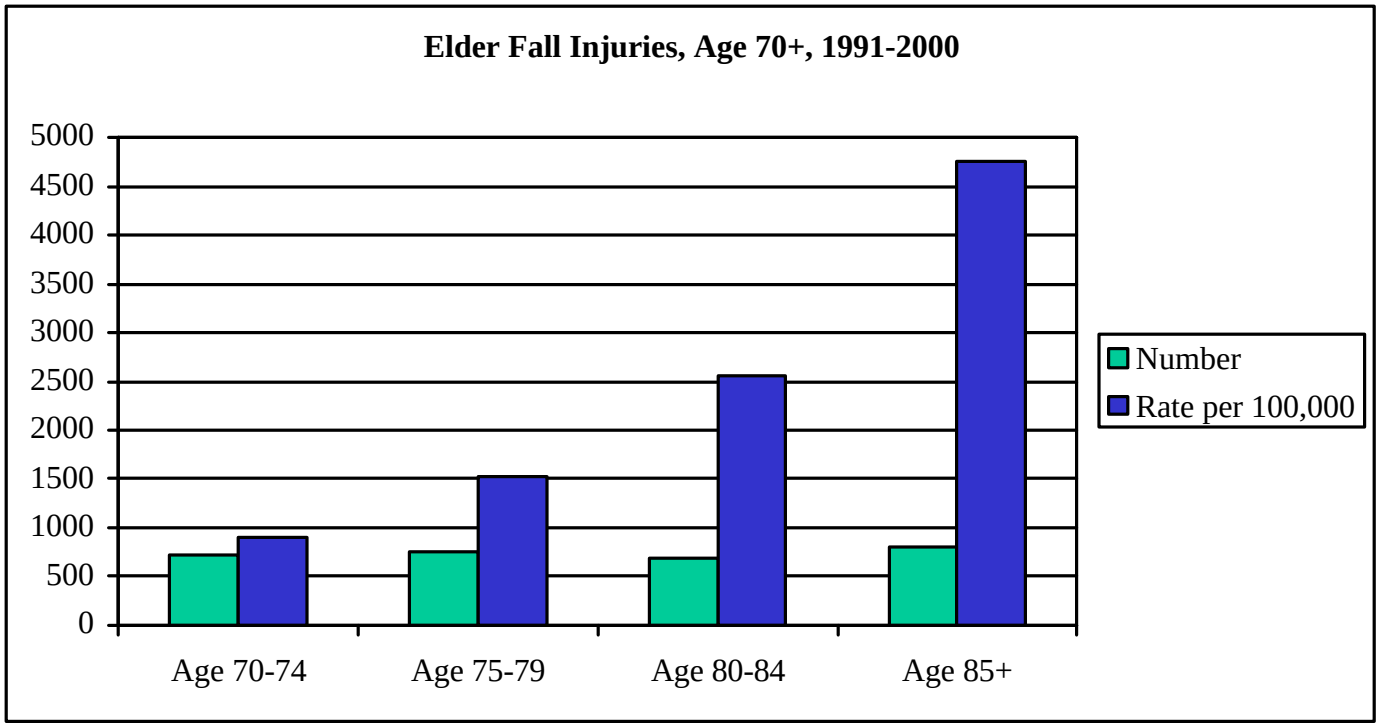
	Manufacturer recommendations of no riders under 16 yoa (+2) Perception of ATVs as toy vs tool (+3)	Perception of ATVs as toy vs tool (-3)
Environment (Social)	Media portrayal of ATVs (+1) Data to work with for IP efforts (+1) Effective IP network in place (+2)	Media portrayal of ATVs (entertainment usage, lack of safety gear in video footage, etc) (-2) Lack of role modeling by law enforcement, peers, medical personnel, parents, etc. (-3) Community acceptance of fatalities (-4) Entertainment use acceptable – ATVs used as babysitting device (-4) Lack of safe alternative activities (-4) Lack of parental supervision – ATVs not seen as a threat/danger (-4)
Environment (Physical)	Perfect vehicle for rough Alaska environment (+3)	Nature of the vehicle is to operate in marginal environments (+3) Lack of transportation alternatives (-3) Lack of safe ATV paths – corners, rough ground, etc. (-4) Hazards: weather, ice, water, mud (-2)
Economic	ATVs are affordable (+3) Hospital costs can help drive injury prevention efforts (+2)	ATVs are affordable (-3) Limited funding for IP efforts (-3) Hospital costs divert funds from IP efforts (-2) ATVs “never leave a village” – used, rebuilt, and run forever (including 3-wheelers) (-2)

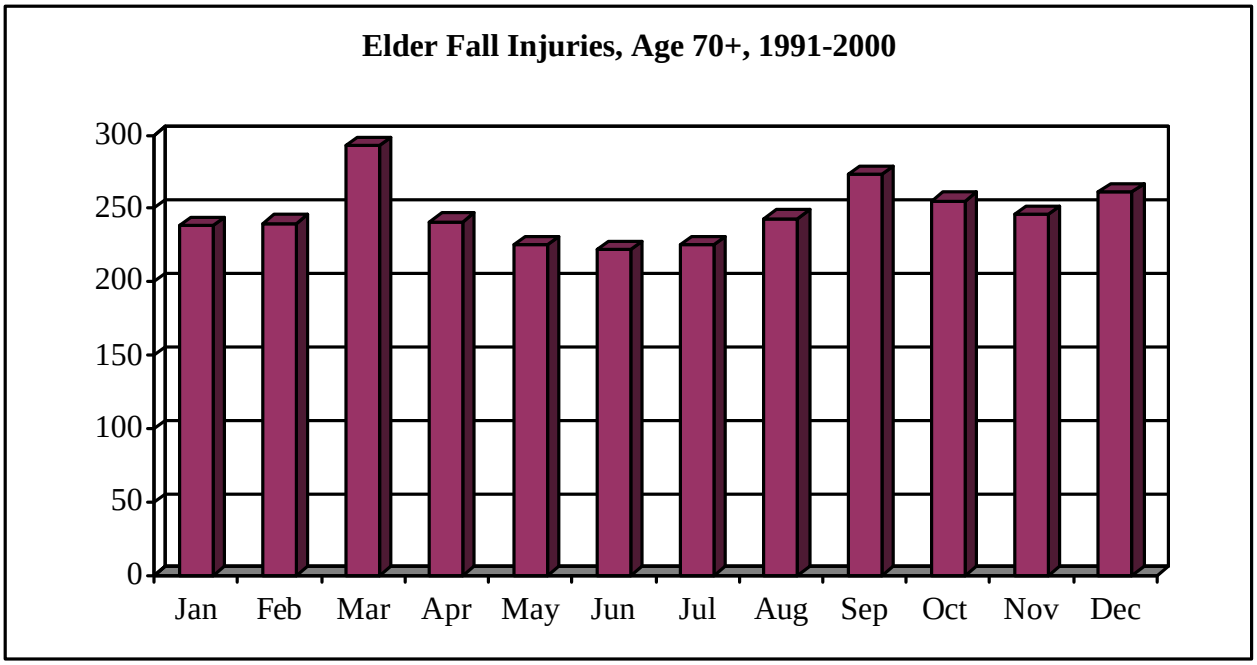
Intervention Ideas:

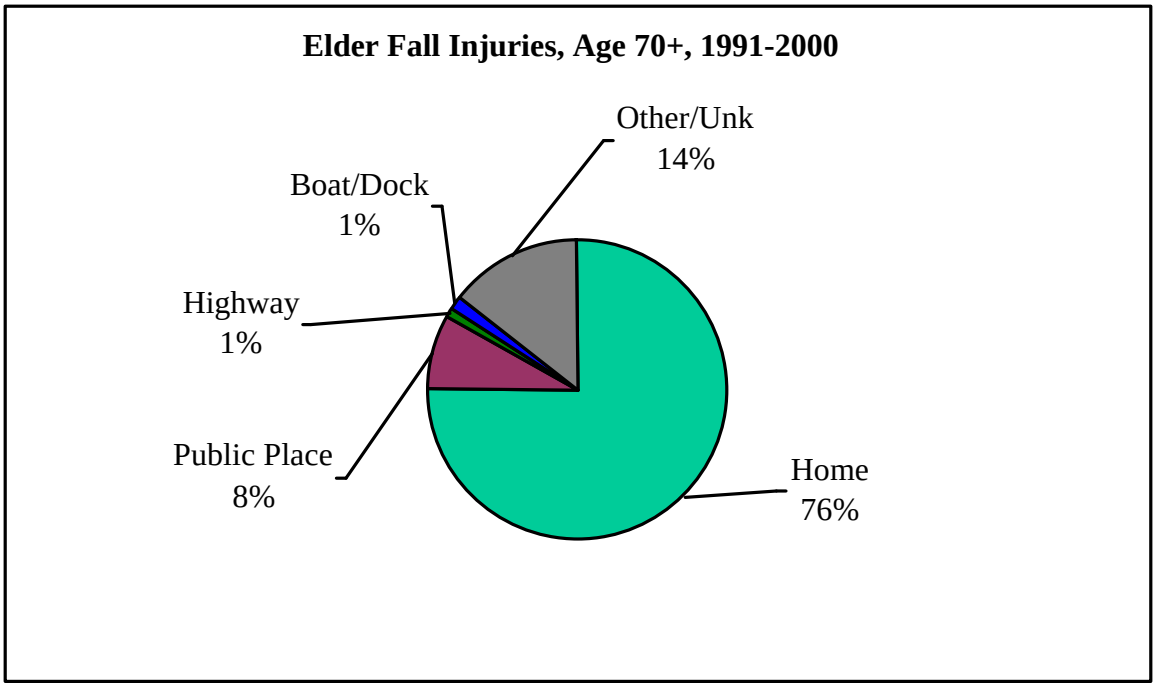
1. Model legislation task force: Review existing legislation and evaluate, as well as make available for other communities to implement in their area.
2. Model programs:
    a. Educate role models, parents, peers, make certified courses, etc.
    b. PSA and media projects
    c. Victim advocacy for ATV IP efforts
3. Helmet availability efforts: Grants to provide helmets at lower cost in communities.
4. Governor/speed keys: Color-coded keys so that parents/drivers can issue "limited speed" keys to youth (already in use in some types of scooters).

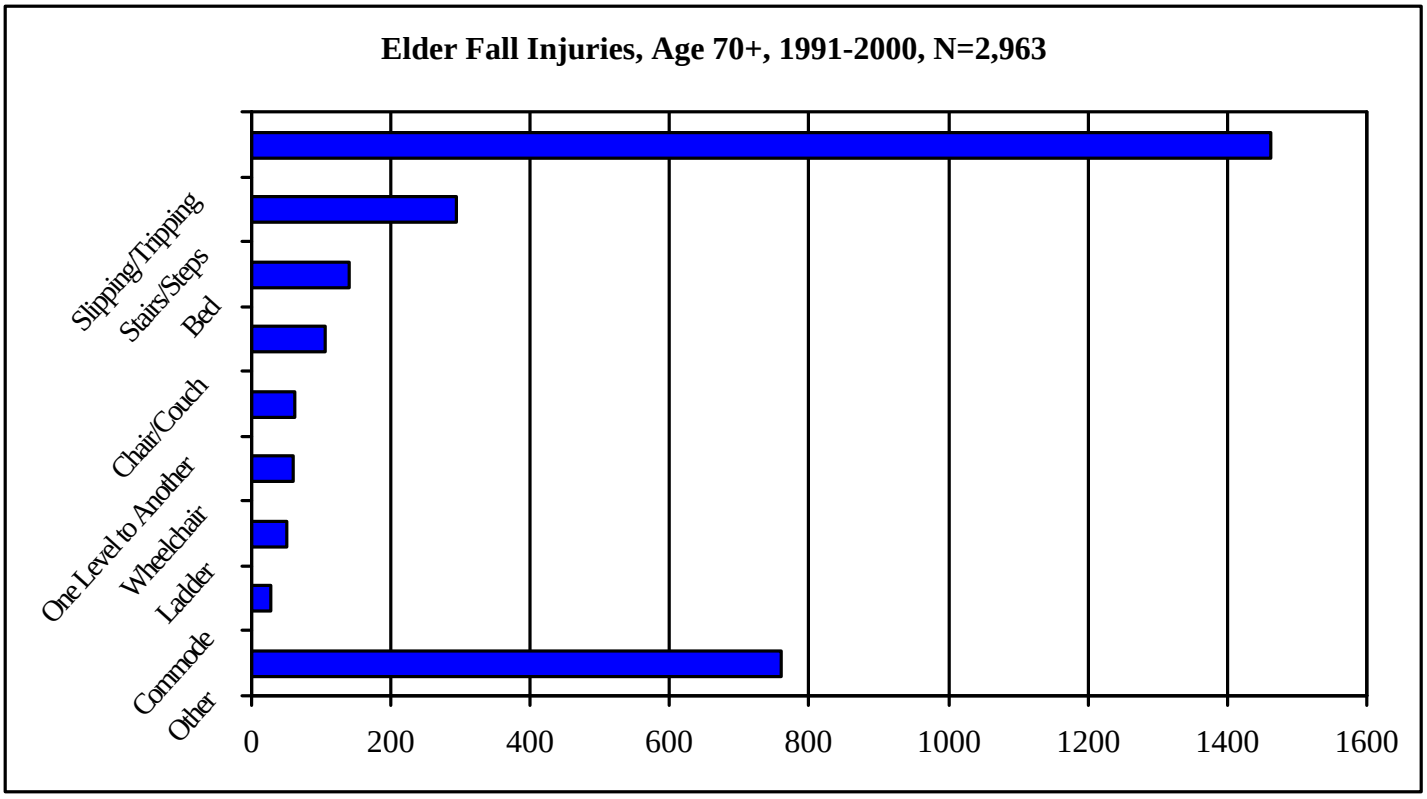
** The group decided that #1 and 2 could be wrapped together (include #1 as "d" under idea #2).

Elder Fall Injury Data from the Alaska Trauma Registry



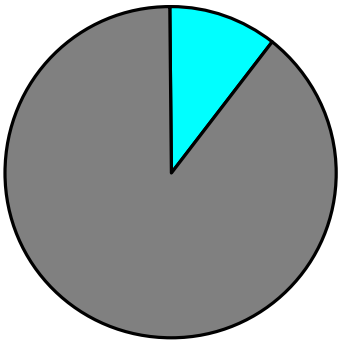



Elder Fall Injuries, Age 70+, 1991-2000
Other/Unk
14%
Boat/Dock
1%
Highway
1%
Public Place
8%
Home
76%


Elder Fall Injuries, Age 70+, 1991-2000, N=2,963
Slipping/Tripping
Stairs/Steps
Bed
Chair/Couch
One Level to Another
Wheelchair
Ladder
Commode
Other
0
200
400
600
800
1000
1200
1400
1600

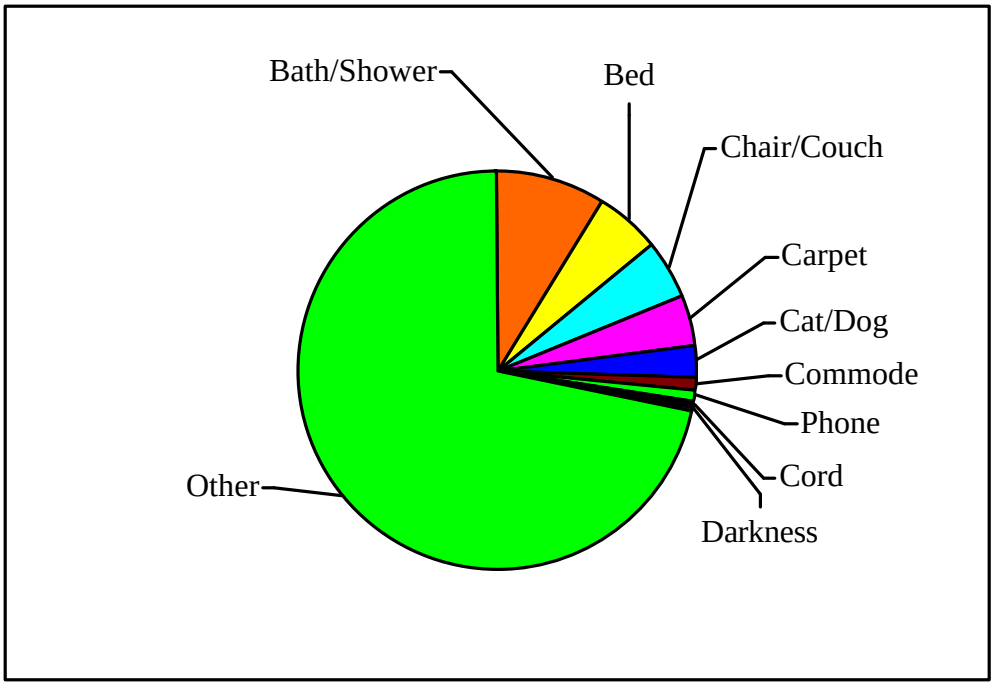
Elder Fall Injuries, Age 70+, 1991-2000

Ice, Snow 11%



- Stairs, steps, sidewalk, driveway, porch, outside public buildings, parking lots, hospital steps, outside Dr. offices, getting in and out of cars, crossing highway, outside home, while carrying something, after drinking, walking dog.

27% of the 2,209 home fall injuries shown below



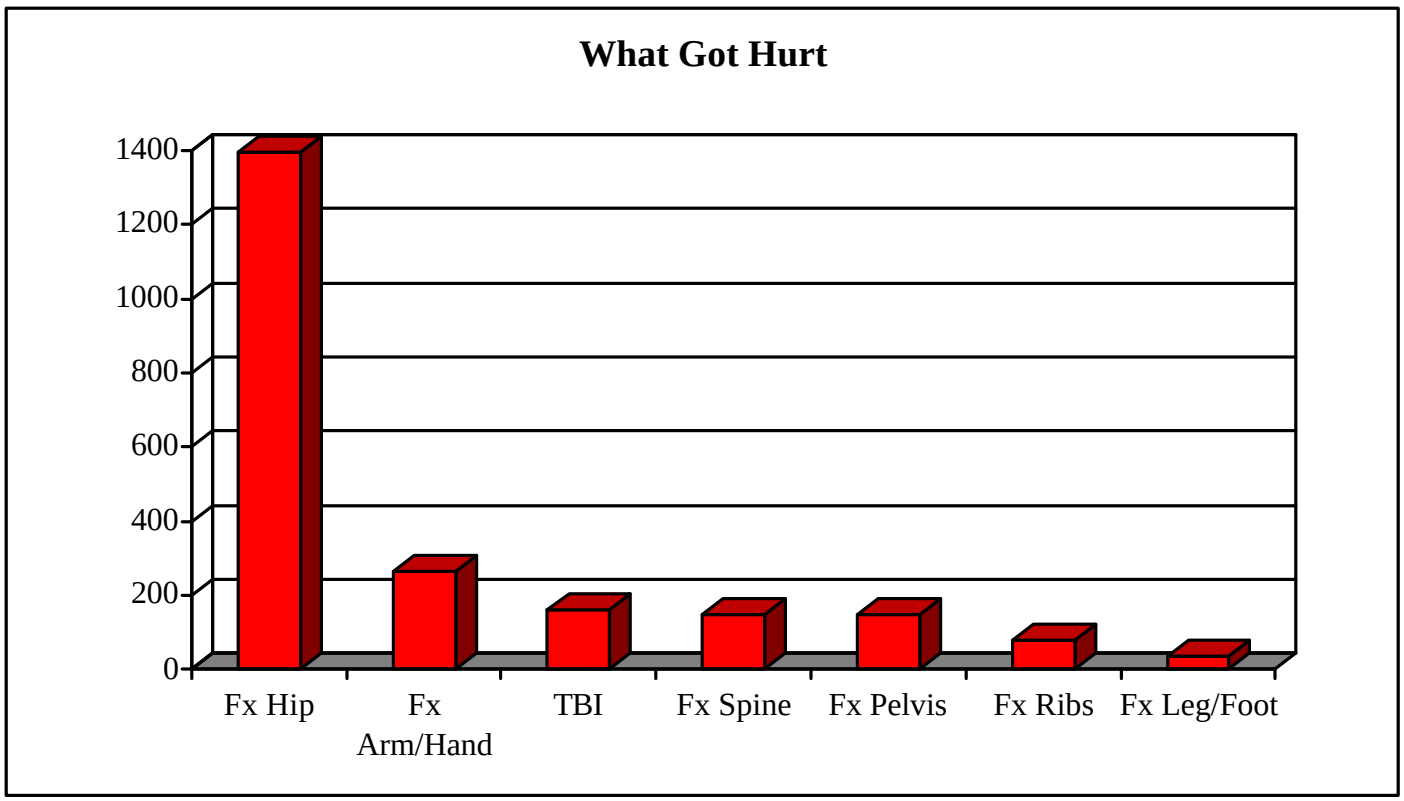
Contributing Factors

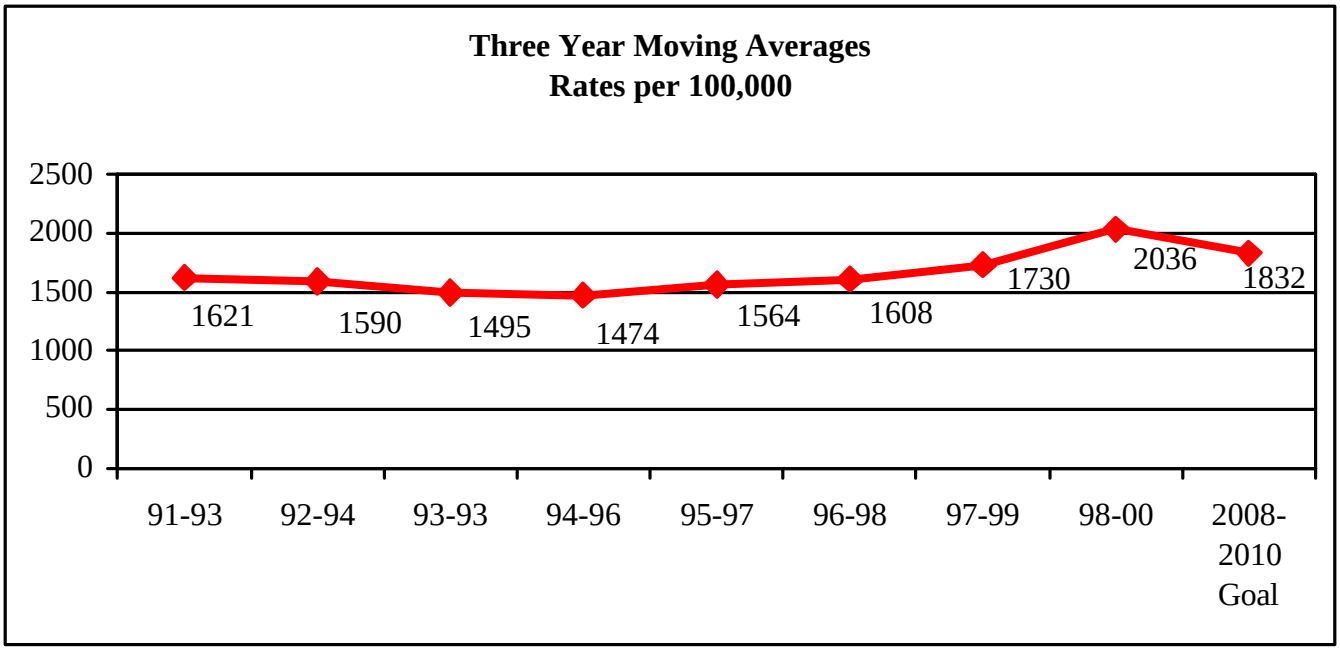
–Suspected alcohol use 5.3%

–Other medical conditions 22%

Dizzy, Fainting, Dementia, Stroke, Walker, Crutches, Wheelchair, Poor Vision, Cancer, Parkinson's, Heart Disease, COPD, Sick.

–Resident of Nursing Home/Assisted Living


What Got Hurt
1400
1200
1000
800
600
400
200
0
Fx Hip
Fx Arm/Hand
TBI
Fx Spine
Fx Pelvis
Fx Ribs
Fx Leg/Foot


Three Year Moving Averages
Rates per 100,000
2500
2000
1500
1000
500
0
1621
1590
1495
1474
1564
1608
1730
2036
1832
91-93
92-94
93-93
94-96
95-97
96-98
97-99
98-00
2008-2010 Goal

Force Field Analysis: Elder Fall Injuries

	Driving Forces	Restraining Forces
Engineering	Safety products more available (+3) Safer footwear (+3) Better assistive devices (+3)	Lack of maneuverability of assistive devices (+1)
Enforcement	Building codes (+1)	
Education	More information available via internet (+2) CDC's published best practices (+1) Physical therapists trained in elder physiology (+1) More research (+2) Increased involvement of Tribal Health and other agencies (+2) Co-habitation of elders in group home settings provides "captured" audience for education (+1) Increasingly better data (+2) Home safety checklists (+2)	Lack of public awareness (+3) Lack of detailed data (+2) Lack of current data (+2) Inaccurate data (+2) Inadequate instructions on use of assistive devices (+3) Lack of organized outreach and quality control (+3) Lack of awareness about safe footwear (+3)
Environment (Social)	Public awareness of safety products (+2) More community-based outreach (+2) Availability of exercise programs (+2) Personal motivation is high (+3) Increasing size of elder population increases clout (+3) Population easily marketed to (+3) Volunteerism high (+2) Fear of losing independence (+3)	Elder discrimination (+2) Isolation of elders (+3) Public attitude toward elderly (+1) Ugliness of hip protectors (+2) Elder perception of aging (+2) Negative connotations to being elderly (+2) Lack of elder involvement in injury prevention planning (+2) Increased life span (+2) Inflexible to change (+3)
Environment (Physical)	Architecture of homes (+1) Global warming (0) Home visits increasing as healthcare tool (+2) Improved EMS (+2) Better nutrition (+1) Increased physical fitness of elders (+2)	Population at risk with pre-existing conditions (+3) Population with increased medications (+3) Alcohol abuse (+2) Risk increases with increasing age (+2)
Economic	Potential savings is huge (+1)	Fiscal crisis (+3) Financial constraints (+2)

Intervention Ideas:

1. Market home safety devices for whole population.
   Effectiveness (2); Feasibility (3); Cost (-3); Sustainability (3); Political Acceptability (3); Social and Political Will (3); Unintended Consequences (-1); Total (10)

2. Improve Data, more detail on how falls occurring.
   Effectiveness (3); Feasibility (1); Cost (-3); Sustainability (2); Political Acceptability (2); Social and Political Will (2); Unintended Consequences (-1); Total (6)

3. "TIPP"-like anticipatory guidance counseling sheets targeted to elders for physicians who treat elders.
   Effectiveness (2); Feasibility (1); Cost (-3); Sustainability (2); Political Acceptability (3); Social and Political Will (2); Unintended Consequences (-1); Total (6)